



COLORADO SPRINGS,  
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MARCH 1991

PIKES PEAK RADIO AMATEUR ASSOCIATION, INC.  
P.O. Box 16521  
Colorado Springs, CO 80935

FIRST CLASS MAIL



# Ø BEAT



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\* Denotes first year of a two year term.

**ZERO BEAT** is published monthly in the interest of the members of the Pikes Peak Radio Amateur Association, Inc., P.O. Box 16521, Colorado Springs, Colorado 80935. Cost is \$1.00 per month for non-members or \$10.00 per year by subscription. Permission is given to reprint articles or excerpts provided credit is given. Deadline for submission of articles or classified ads is the 21st of each month. Submissions may be sent directly to the editor or to the club P.O. Box.

The Pikes Peak Radio Amateur Association meets on the second Wednesday of each month at the Elks Lodge, 3400 North Nevada Ave. at 7 PM.

EDITOR: Ron Deutsch NKØP 4305 Ridgeline Drive, Colorado Springs, Colorado 80918 (719) 593-8352. Electronic data transfer by appointment.

## Message from the President...

Once again, I'm cutting my column a little short so we can include a list of the various committee chairpersons and others in the club who members might want to contact for one reason or another. We'll publish this on a monthly basis updating the information as required.

The board has received good suggestions from a few of members and we'd like to implement some of them as follows:

- First of all, we'd like to encourage members to use the "Dits and Bits" column in Ø BEAT to request any form of help, rather like the "Strays" column in QST. Perhaps you're looking for someone with a similar interest, someone to help you with a specific problem, or perhaps you're considering purchasing a particular rig and would like opinions from others who've owned one. Use "Dits and Bits" — it's FREE to PPRAA members.
- It has been noticed that many of the more technical members of the club are rarely seen at our monthly meetings nowadays and the concern was expressed that we are not putting on a sufficient number of technical programs. So we'd like to ask anyone who could present on a technical subject, or who knows someone who could, to please come forward. Also please let us know what topics you'd like to see and the board will try to find a presenter.
- We have been asked to make the club roster available to all members so the decision has been made to print it in sections on a space available basis in Ø BEAT. It will be updated as changes occur and it will be repeated, probably every few months.

Thanks to those who came forward with suggestions. Some would be difficult to implement but the board will try to address all your concerns.

I hope to see you all at this month's meeting...

73, Dave, NØION

## Committee Chairpersons, etc.

Publicity:	Al Craig N2IWZ	594-9288
Education:	Allen Bailey ADØZ	597-8514
VE Testing:	Bill Stanfill K4YCD	531-7738
	Chris Smith NXØE	495-0624
Interference:	Lauren Libby KXØO	593-9861
ARES:	John Chapman NØKIC	635-1604
SKYWARN:	Doug Paris N4TGO	485-4908
Public Service:	Mike Stansberry KØTER	636-1290
Field Day:	Mike Stansberry KØTER	636-1290
CCARC:	Oak Stockton KØROL	570-7782
Club Trailer:	Steve Westby WB7VHR	570-1070
Swapfest:	Jeff Boyes NØJLH	581-6438
Swapfest Tables:	Al Vrooman NØCMW	473-1660
	Frances Vrooman NØIUT	473-1660

SORTED BY NAME

26 JAN 1991

## PIKES PEAK RADIO AMATEUR ASSOCIATION MEMBERSHIP ROSTER

LAST, FIRST	CALL	ADDRESS	ZIP - PHONE
ALDEN, FRED	WB3TD	7080 GAIL PL. COLO. SPGS. CO	80920 593-0984
BAILEY, ALLEN	AD0Z	2715 ALTEZA LANE COLO. SPGS CO	80917 597-8514
BANKS, DAVID	MO1OM	7310 SORRELL CT. COLO. SPGS. CO	80919 260-1318
BARBEAU, ARTHUR	MO1HO	702 PIONEER LANE COLO. SPGS. CO	80904 632-0946
BATES, CHRIS		1812 W COLORADO AVE COLO. SPGS. CO	80904 471-7590
BATES, STEVE		1812 W COLORADO AVE COLO. SPGS. CO	80904 471-7590
BEATON, ARTHUR	W9OFU	150 DOLANITE DR COLO. SPGS. CO	80919 593-1719
BEAUCHAMP, GEORGE	W0OK	1316 W. BENNETT AVE, COLO. SPGS. CO	80909 635-8758
BELLAMY, ELEANOR	K02BAJ	2413 WARWICK LANE COLO. SPGS. CO	80909 591-2378
BELLAMY, WILLIAM	W02EVA	2413 WARWICK LANE COLO. SPGS. CO	80909 591-2378
BENTON, MALCOLM	KE9S	15365 DEBY DR. COLO. SPGS. CO	80921 488-2071
BENTON, PAMELA	W9WHA	15365 DEBY DR. COLO. SPGS. CO	80921 488-2071
BERGESON, HAL	W0NXY	809 E. YERMIJO AVE. COLO. SPGS. CO	80903 471-0238
BIGHAM, DARLENE	W5PAP	12325 HODGEN RD ELBERT CO	80106 495-9213
BIGHAM, STANLEY	W5POM	12325 HODGEN RD ELBERT CO	80106 495-9213
BOLLER, RICHARD	W01ZM	5650 SADDLE ROCK RD COLO. SPGS. CO	80918 398-2802
BOONE, STEVE	W0SWM	110 PINWOOD LOOP MONUMENT CO	80132 481-3760
BORBER, LYLE	W0LFW	P.O. BOX 16317 COLO. SPGS. CO	80935 598-2742
BORST, JODY	KA0R0Z	2542 E. B130U COLO. SPGS. CO	80909 634-3995
BORST, LES	K00MC	2542 E. B130U COLO. SPGS. CO	80909 634-3995
BOYES, JEFF	W0JLH	1126 WOOTEN COLO. SPGS. CO	80915 591-6438
BOYES, RENAY	KA0R0Y	1126 WOOTEN COLO. SPGS. CO	80915 591-6438
BREKERTON, TOM	W2TJO	3915 CANTRELL DR. COLO. SPGS. CO	80911 390-9247
BROWER, DOUG	W0HJT	19770 TOP O' THE MOORE DR. MONUMENT CO	80132 488-8559
BROWN, RICK	KD03U	3249 SQUAW VALLEY DR. COLO. SPGS. CO	80918 531-9423
BRYANT, FAYLENE	K05FTM	706 ASH STREET YANDENBURG AFB. CA	93437
BRYANT, FLOYD	K05FCM	706 ASH STREET YANDENBURG AFB. CA	93437
BUCHIN, HARRY	W3TEB	1907 E. VAN BUREN ST011 COLO. SPGS CO	80909 634-1964
BUCKNER, SPENCER	W000	8165 SUMMERSET DR. APT. D COL SPGS CO	80920 593-7610
BURMETT, BOB		6825 SWAN RD. COLO. SPGS. CO	80908 495-3512
CALAWAY, ROSIE	W00NML	616 N. 31st ST. COLO. SPGS. CO	80904 471-9965
CALAWAY, RUS	K00FNM	616 N. 31st ST. COLO. SPGS. CO	80904 471-9965
CASELLA, MICHAEL	K0610D	5027 MADDELL AVE COLO. SPGS. CO	80915 374-8294
CATON, DENNIS	K00DPK	1601 VICKERS DR. COLO. SPGS. CO	80918
CHAPMAN, JOHN	W0KIC	604 E. FONTANERO ST. COLO. SPGS. CO	80907 635-1604
CHATELAIN, DON	KE0MC	1470 LOFLIN RD. COLO. SPGS. CO	80930 683-2883
CHILDRESS, HERB	K00DE	99 RAVEN HILLS COURT COLO. SPGS. CO	80919 598-2346
CLARK, GEORGE	W00UE	370 ROXBURY CIRCLE COLO. SPGS. CO	80906 576-8844

CLARK, GLENNON	W00UE	132 AMHERST ST. SECURITY CO	80911
CLARK, JAMES		5305 WHIMSICAL DR. COLO. SPGS. CO	80917 637-9434
CLAUSEN, LINDA	KA0EIX	P.O. BOX 2080 WOODLAND PARK CO	80866 687-6666
CLAUSEN, MICHAEL	K00S	P.O. BOX 2080 WOODLAND PARK CO	80866 687-6666
CONSTON, ANTHONY	W0NWK	P.O. BOX 1486 LANAR CO	81032
COOK, BARRY	W0HOG	2758 N. ARCADIA COLO. SPGS. CO	80907 634-8009
CORNELL, BOB	W0MCT	721 LANSING DR. COLO. SPGS. CO	80909 596-4216
COX, JENNIFER	K00EZH	4241 HARLO CIR. COLO. SPGS. CO	80916 597-9760
COX, LAURIE	K00EXL	4241 HARLO CIR. COLO. SPGS. CO	80916 597-9760
COX, STEPHANIE	K00E2G	4241 HARLO CIR. COLO. SPGS. CO	80916 597-9760
COX, THOMAS J.	W00SVH	4241 HARLO CIR. COLO. SPGS. CO	80916 597-9760
CRAIG, AL	W21WZ	2872 DUBLIN BLVD APT 176 COLO SPGS CO	80918 594-9288
CRAWFORD, JOHN	K00SH	555 HIDDEN MARSH RD MONUMENT CO	80132 481-3568
CRUISE, BEN	W0LNV	15220 LEATHER CHAPS DR COLO. SPGS. CO	80921 481-2537
CULLEN, RICHARD	W0THDO	P.O. BOX 7692 COLO. SPGS. CO	80933
CUNLIFFE, JOHN	K00EDL	2740 FAULKNER PL. CO. SPGS. CO	80936 574-0790
DAVIS, CHARLIE	KW4D	1275 WINDMILL AVE. COLO. SPGS. CO	80907 260-6305
DEUTSCH, RON	W0KOP	4305 RIDGELANE DR. COLO. SPGS. CO	80918 593-8352
DICKFORSN, RFW	W0R0M	2231 MARKSMAN DR CHIA SPGS. CO	80909 577-4744
DODD, F. A.	K00EPM	1923 WOODBURN ST. COLO. SPGS. CO	80906 471-1883
EINING, CHARLES	W9YYO	3755 E. CRESTA LOMA CIR. COLO SPGS CO	80911 390-8655
ERICKSON, DONALD	W00INH	4728 FROST DR COLO. SPGS. CO	80916 591-8884
FIELDS Jr, ROBERT	K00FUT	18535 WOODWOOD BLVD. MONUMENT CO	80132 488-2237
FLYNN, GLENN	W0NHY	2 FRIENDSHIP LANE COLO. SPGS. CO	80904 635-1909
FREEBORN, ANDY	W0CCZ	5222 BORRERO DR. COLO. SPGS. CO	80918 598-8323
FRENCH, WILLIAM	W25RQ	ROUTE 2 CALHAN CO	80808 683-2770
GATHER, LOREN	W70XR	6550 DELMONICO DR. 8105 COLO SPGS. CO	80919 598-1884
GALBRAITH, JOHN	K00GHI	675 ROCK CREEK HESA RD. COLO SPGS. CO	80926 576-1313
GEORGE, ARTHUR	K2ZAH	1049 KEITH DR. COLO. SPGS. CO	80916 591-2701
GOOBIE, KEITH	WY0T	23 CHUNLEIGH THORNHILL GMLST-4GS CANADA	
GRAS, FRED	W7NHR	5042 EL CAMINO DR #56 COLO. SPGS. CO	80918 531-5130
GRAY, JOHN J., JR	W04HOG	2340 SKY VIEW LANE #175 COLO. SPGS CO	80906 634-4896
GRAY, KENNETH	W0F0Q	2810 ORO BLANCO DR. COLO. SPGS. CO	80917 574-7318
GUYOTE, MICHAEL		1250 DEER CREEK CIR MONUMENT CO	80132 481-4673
HAGGART, BOB	W0CTY	158 WIDEFIELD BLVD. COLO. SPGS. CO	80913 390-8911
HANSEN, HARLEY	K0070	9011 MINNESOTA, SUN LAKES AZ	85248
HANST, JERALD	K00ST	7013 KIPLINGS ST. COLO. SPGS. CO	80911 390-4108
HASSINGER RONALD	W0VOY	4360 BEGGHIA TERRACE COLO. SPGS. CO	80920 599-9467
HERREN, FAYE	K00QI	3018 KIDNA COLO. SPGS. CO	80904 632-4574
HICKMAN, IVAN		1720 PETERSON RD COLO. SPGS. CO	80915 550-0161
HINDS, GEORGE	W0CIX	P.O. BOX 5708 WOODLAND PARK CO	80866 687-2810
HORTON, KURT	W2HHF	2230 ANGEL BLUFF CT COLO. SPGS. CO	80919 598-1194
HOSEA, MEL	W3THR	1907 TELSA DRIVE COLO. SPGS. CO	80909 596-8587
JACOBS, JAKE	W0CYR	194 OLD BROADHOOR RD. COLO. SPGS. CO	80906
JAMES, DALEAN	KA0TSA	510 E. WASHINGTON COLO. SPGS. CO	80907 430-1542

JAMES, LONNY WQXU 510 E. WASHINGTON COLO. SPGS. CO 80907 430-1542  
 JEFFRIES, F. D. 16045 ROLLER COASTER RD CO. SPG. CO 80921 488-0787  
 JOHNSTON G. WOCW 2008 W. CHELTON COLO. SPGS. CO 80909 634-7993  
 KALTENSTEIN FRANK WOICW 5102 GALLEY RD. B3040 COLO. SPGS. CO 80915 596-7980  
 KENNER, THOMAS W84HWC 7845 WALKER RD COLO. SPGS. CO 80908 495-9122  
 KESSLER WILLIAM A K80HKS 2925 ELECTRA COLO. SPGS. CO 80906 635-2719  
 KESSLER WILLIAM C K80HCP 2925 ELECTRA COLO. SPGS. CO 80906 635-2719  
 KESTER, ELIZABETH K80ENH 802 SAN ANTONIO PL. COLO. SPGS. CO 80906  
 KIEFFABER, JAMES K80SPS 811 SAWATCH COLO. SPGS. CO 80903 475-0748  
 KILE, RICHARD W87THT 4922 CRESTWOOD DR. COLO. SPGS. CO 80918 599-7665  
 KIMBALL, MICHAEL K80DPH 1429 POTTER DR. #160 COLO. SPGS. CO 80909 597-5705  
 KLINE, DAVID K80JY 10309 McCLELLAND RD. CALHAN CO. 80808 683-3561  
 KLINE, WILLIAM K80DPJ 10309 McCLELLAND RD. CALHAN CO 80808 683-3561  
 KOEPP, HARRY W8TB 2107 PARKVIEW BLVD. COLO. SPGS. CO 80906 633-2882  
 KOOTSEN, ROBERT K. 1314 FOSDICK CIR COLO. SPGS. CO 80909  
 KRAL, LARRY W8AMP 14594 WESTCHESTER DR. COLO. SPGS. CO 80921 488-2589  
 LAFOSSE, PETER W8LA 5750 MERIDIAN RD. FALCON CO 80831 495-4829  
 LAMPL, M. B. W8CUS P.O. BOX 88 CASCADE CO 80809 684-9749  
 LAPORA, ROGER K8KRG 3343 W. BIJOU COLO. SPGS. CO 80904 473-6823  
 LECATO, HARVEY W1JU 7913 COLORADO SPGS. OR SPRINGFIELD VA 22153  
 LEHMANN, MICHAEL W9MHL P.O. BOX 651 MONUMENT CO 80132 488-2440  
 LEHMANN, SYLVIA K80YLR P.O. BOX 651 MONUMENT CO 80132 488-2440  
 LEPLLEY, BRUCE A. K80FEL 3875 VALLEYVIEW WAY COLO. SPGS. CO 80907 593-8704  
 LESLIE, NORMAN W8GCP P.O. BOX 484 WOODLAND PARK CO 80866 687-3539  
 LIBBY, LAUREN KX00 8166 DEL PAZ DR. COLO. SPGS. CO 80918 593-9861  
 LIBENGOOD, BOB W8DDF 99 OLD BROADMOOR RD. COLO. SPGS. CO 80906 475-0537  
 LOCKHART, GEORGE W800UH 13125 HERRING RD. COLO. SPGS. CO 80908 495-3983  
 LOFTIN, ORRIN K80HQC 1590 DUBLIN BLVD. #223 COLO. SPGS. CO 80910 531-5429  
 LOPEZ, ROO K80VO 5191 BITTERWEED LN COLO. SPGS. CO 80917 596-3720  
 LORRIN, LEE 5313 SMOKEHOUSE LN. COLO. SPGS. CO 80917 574-6924  
 LUND, EDWARD K80HB 6965 WILDRIDGE RD. COLO. SPGS. CO 80918 495-9007  
 MARCIANO, JOSEPH K80S 1214 AUBURN DR. COLO. SPGS. CO 80909 597-0825  
 MARTIN, BILL K80H 4380 SEDATE LANE COLO. SPGS. CO 80917 596-7519  
 MAYER, PETE P.O. BOX 5977 WOODLAND PARK CO 80866 687-4456  
 MCBRIDE, DONALD W8TVYA 4858 WEBB DRIVE COLO. SPGS. CO 80916 574-5444  
 MCCARTY, JACK W8CYS 2610 E BIJOU ST. COLO. SPGS. CO 80909 633-3479  
 MEANS, ED W8VO 212 FARRAGOT AVE. COLO. SPGS. CO 80909 473-6174  
 METCALF, H. B. W8GEC 1058 FORTMORE RD. COLO. SPGS. CO 80904 471-0871  
 MCDONNEY, DOUG W8MHP 3817 VAQUERO CIR. COLO. SPGS. CO 80918 599-9605  
 MODERS, STEVE K8TNY 13225 CALIFORNIA TRAIL CT. ELBERT CO 80106 495-3751

MORGAN, MICKY K80GHA P.O. BOX 9007 DIVIDE CO 80518  
 MORGAN, RON K80GLI P.O. BOX 9007 DIVIDE CO 80814  
 MORRIS, RONALD K80ZHO 2008 W. KIOVA ST. COLO. SPGS. CO 80904 634-1441  
 MORROW, BOB W86ETH 1969 GOLDEN PINE LN MONUMENT CO 80137 488-2251  
 MESLER, PAUL K80CUZ 2009 McARTHUR AVE. COLO. SPGS. CO 80707 433-2214  
 MITRA, CHARLES K8KZA P.O. BOX 88 WOODLAND PARK CO 80866 687-7666  
 MOCHA, RON W86FRY 7415 CAVALIER CT. COLO. SPGS. CO 80920 599-5805  
 MOHS, DENNIS K70GL 0 CO 1ST. DR. 8TH. INF FT CARSON CO 80912 579-1090  
 PARIS, DOUG W8TGO 16645 HIGH TREE DR. ELBERT CO 80104 495-4505  
 PHERIGO Jr. BILL W80Y 1220 DARGY ST. COLO. SPGS. CO 80907 598-2778  
 POLSUE, BEN K80GHE 111 WELLINGTON FOUNTAIN CO 80817 382-8434  
 PUXTY, WILLIAM 1404 TWEED ST. COLO. SPGS. CO 80909 632-3567  
 QUINTANA, JOSEPH W8ENH 1916 E. WINTAH ST. COLO. SPGS. CO 80909 633-2211  
 REDDING, HAZEL K80VPS 2423 YORNTOWN RD COLO. SPGS. CO 80907 624-2247  
 RICHARDSON, MARK W8EPF 3803 OXTON WAY COLO. SPGS. CO 80904 596-6912  
 RIESE, DAVID W80SDW 1405 DIANA LN. COLO. SPGS. CO 80909 633-4597  
 ROSS DON W87CO 1311 AUBURN DR. COLO. SPGS. CO 80909  
 ROSS, MARYJANE K80ZSM 1311 AUBURN DR. COLO. SPGS. CO 80909  
 SANCHEZ, D. J. W8PHJ 7015 HAZELWOOD LN COLO. SPGS. CO 80918 260-1336  
 SANDERSON, DAN K85T 19810 INDIAN SUMMER LN MONUMENT CO 80132 488-3165  
 SANDERSON, MAIRA K85JXS 19810 INDIAN SUMMER LN MONUMENT CO 80132 488-3165  
 SCHAARSCHNIOT S. K80CI 6155 TUCKERMAN LANE COLO. SPGS. CO 80918 598-3554  
 SCHEELE, CRAIG 3710 CALICO CT COLO. SPGS. CO 80918 593-1160  
 SHUMAKER M. K80BPY 3635 MEADOWLAND COLO. SPGS. CO 80918 548-1410  
 SHUMAKER, RODNEY K80BPT 3635 MEADOWLAND COLO. SPGS. CO 80918 548-1410  
 SIMS, MARY W86YXD 19740 FOUR WINDS WAY MONUMENT CO 80132 481-4507  
 SMITH, CHRIS KX0E 12455 DONOVAN LN. COLO. SPGS. CO 80908 495-0624  
 SMITH, SUSAN K87HXX 12455 DONOVAN LN. COLO. SPGS. CO 80908 495-0624  
 SORRELLS, JIM W89AB 3200 BRIARCLIFF DR. FINDLAY OH 45840 422-1608  
 STAFFORD, KIRBY W80TB 4010 W. LORINE CR. COLO. SPGS. CO 80909 598-3522  
 STAFFORD, MAX K80EL P.O. BOX 35 PALMER LAKE CO 80133 488-9289  
 STANFILL, BILL K8YCO 105 SADDLE MOUNTAIN RD. COLO SPGS. CO 80919 531-7732  
 STANBERRY, MIKE K8TER 2630 UINTAH COLO. SPGS. CO 80909 636-1290  
 STEELE, DAVID W8LTW 5456 MOSQUITO PASS COLO. SPGS. CO 80917 596-8007  
 STEPHENS, WAYNE W8ISV 1110 HOLMES DR. COLO. SPGS. CO 80909 550-0938  
 STOCKTON, DAK K80RL 5102 GALLEY RD #4294W COLO. SPGS. CO 80915 570-7782  
 STOCKWELL, PAUL K80UX 2128 BROKEN CIRCLE RD COLO. SPGS. CO 80915 596-4564  
 STREAMER, CONNIE K80PX 1304 N. FOOTE COLO. SPGS. CO 80909 634-1081  
 STREAMER, RALPH K80TX 1304 N. FOOTE COLO. SPGS. CO 80909 634-1081  
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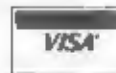


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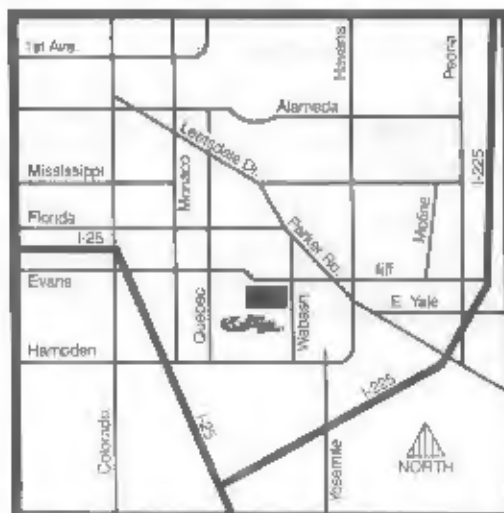
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# PPRAA GENERAL MEETING

## MINUTES

13 FEBRUARY 1991

The general meeting of the PPRAA was called to order at 7:00 pm on February 13, 1991. Harv, WB6YXD presided due to the illness of Dave, N0ION. 71 members and guests were present. After introductions, the minutes of the previous meeting were approved as printed in O-Beat.

In committee reports, Rosie, WA0MNL, reported that the treasury had income of \$572.83 and expenses of \$419.57 leaving a balance of \$2584.79.

Ron, NK0P, indicated that last month's O-Beat was almost 100% member written and expressed his thanks. It is noted that articles are always desired.

There were no current reports from Interference or CCARC. Al, N2TWZ, noted efforts he has made recently. He received two calls for information from notices placed in the Gazette; KCME will run announcements on the air; an article on the codeless license was submitted to the Gazette and has a good chance of being printed; and Al is planning on contacting more radio stations and the Northern Light.

John, N0KIC, gave a brief explanation of the purpose and function of ARES (Amateur Radio Emergency Service) for newcomers to the meeting. He also spoke on various upcoming planned activities.

Mike, K0TER, noted several upcoming public service events. He spoke of the long history of the club in such projects and indicated that some requests had to be turned down last year due to conflicts. There are four events in the near future: Feb. 23rd will see a rocket launch sponsored by the Denver Chapter of the AAA Rocket Association; on April 6-7 the MS Supercities Walk will be held with one day scheduled for Colorado Springs. This event will also be an ARES test. Saturday, April 13th, 25 people (minimum) are needed for the Project Concern Walk for Mankind; and on Sunday, April 28th the March of Dimes WalkAmerica will be held. Amateurs wishing to become involved with these or other events should contact Mike or a Board member and let their intentions be known.

In Field Day matters, Al, N0CMW, will coordinate the VHF station and Les, KC0NC, will coordinate the SSB station.

Chris, NX0E noted that VE testing will occur March 9th at Chapman College. Persons wishing to test can pre-register by submitting a form 610. Contact Chris at 495-0624.

Al, AD0Z, reported that education classes will be starting in March and will involve both code and theory studies. Classes will meet twice a week for about 6 to 8 weeks.

Steve, WB7VHR, noted that severe weather classes begin in Denver March 19th. These will cover severe weather in depth, meet 2 nights a week for 3 hours a night, and require a purchase of a \$15 book. Local classes will be held soon - they will not be as thorough as the Denver classes.

The trailer committee indicated that 12 volt buses have been installed along with a 120 volt bus and the trailer is now useable for events.

In other business, it was Moved and Seconded to purchase two of the Skywarn Books at \$15 each for the club library. The motion Passed.

Jeff, N0JLH, updated the group on Swapfest plans for the May 18th date. An Icom 2400 dual band rig will be the grand prize. Al and Frances (N0CMW/N0IUT) will be table co-chairs. There being no further business, the meeting adjourned for the break.

After the break, the raffle winners were chosen. Prizes went to the following:

Lee, KC0NC,	VCR tape
Mike, WV7T	Instrument case
Jeff, N0JLH	Computer disks
Mel, W3TMR	Calculator
Doc, W0MCT	Clock
Larry, WR2F	Tickets to Auto Museum
Dennis, N7OGL	Kenwood Calendar
Al, N0CMW	Kenwood Calendar
Steve, WB7VHR	OEM gift certificate

Following the drawing, the program featured Dr. Charles Stewart, the Regional Medical Director - Western Region of EMSA who spoke on electrical (lightening injuries). Highlights of the talk are noted below.

There are four basic types of lightening - Streak, which travels from cloud to ground in only 20 milliseconds; Ribbon - streak lightening that occurs during high winds; Sheet - normally a cloud to ground type; and Ball and Bead which is rare and not completely understood.

Typical lightening has the following specifications:  
30-200 Mega volts, Temperature of 20-50,000 degrees Fahrenheit, DC Current, Instantaneous in occurrence (28 Milliseconds).

Common injuries are of the explosive and blast type and occur as a result of Direct strikes, Side Flashes (jumping from a tree to a person), Contact (a ground hit which propagates to a person), and Step lightening (it steps from a high resistance ground to

a person who represents a much lower resistance.

The most dangerous places, according to latest studies, are open areas, under trees, inside buildings (danger from fire), and near water.

Injuries cover a range of difficulties and affect the major systems of the body.

Dr. Stewart covered the topic quite completely and presented excellent slides to supplement his talk.

Following the talk, the meeting adjourned at 8:58 pm. The next regular meeting will be at the Elk's club on March 13, 1991.

Respectfully submitted, Mark, N0EPF

## PPRAA BOARD MEETING MINUTES

19 FEBRUARY 1991

The Board meeting of the PPRAA was called to order on Tuesday, February 19th in the home of Dave, N0ION at 7 pm. Present were: Dave, Harv-WB6YXD, Ron-NK0P, Al-N0CMW, Rosie-WA0MNL, Russ-KB0FNM, Jeff-N0JLH, Renay-KA0ROY, Cassie, and Mark-N0EPF.

Jeff updated the board on the Swapfest. The grand prize will be an Icom 2400A dual band mobile rig and 2nd prize will be a multi-mode TNC. There was some discussion of the wording to appear on the tickets. It was decided to order 2000 tickets and the board members will lead in the distribution. Other items of discussion centered on security, insurance, a PA system, fire extinguishers, and announcements.

Ron noted that the newsletter and a Swapfest announcement were handed out at a recent swapfest. The club will keep an increased printing through the date of the Swapfest. Also, a membership list will be printed in 0-BEAT as soon as possible.

It was noted that Al-N2IWZ has already done an impressive job of contacting people and obtaining publicity for the club.

Upcoming programs are tentatively set as follows: in March -- the Colorado Connection; in April -- severe weather; in May -- sporadic E above 50 Mhz. (the May program was not able to be arranged but negotiations are continuing for a future date). Any members with ideas for a program or willing to make a presentation should contact a board member and communicate their desire.

Again, education classes have been scheduled to begin March 18th (corrected date) and will be held at the VFW Post #4051 located at 430 East Pikes Peak. Times will be on Monday and Thursday from 7 to 9 pm. For information, contact Al-AD0Z at 597-8514 or Rosie-WA0MNL at 471-9965. Offerings will include Novice, No-Coda, and Technician (including code). Advance sign-up is highly desired.

Discussion next centered on Field Day. It was Moved and Seconded to provide \$100 for the feeding of the hungry participants. The motion Passed. The board expressed its thanks to Mike-K0TER for already doing a good organizing job.

It was reported that Dave Steele- N0LTW has been battling illness for quite some time. Members are encouraged to send him a card.

Russ-KB0FNM volunteered to provide the doughnuts at the club meetings and his offer was immediately accepted. There was also some discussion of concerns about the meeting rooms and even the need for a possible move to larger quarters.

A discussion of comments to the board by a member occurred on the subject of improving club communication. The board hopes the discussion and exchange of ideas will continue.

There being no further business, the board adjourned at 8:49 pm. The next board meeting will be Monday, March 18th at the home of Russ-KB0FNM.

Respectfully Submitted, Mark - N0EPF

## PPRAA CLUB MEETING

The PPRAA will hold the next meeting on March 13th at the Elk's Club, 3400 North Nevada Ave.

The topic will be the "Colorado Connection" the speaker will be George, KD0RW

## ARES DISTRICT 14

El Paso & Teller Counties  
EC Mike/K0THR 636-1290  
ABC Bud/N0AA 689-2983  
ABC John/N0KIC 635-1290

### NETS

Dist. 14: Tues. 7:00 PM 146.37/97 (Alt. 147.945/345)

East Slope: Sun. 8:30 AM 146.34/94 (Alt. 146.37/97)

Colorado: Sun. 8:00 AM 3928 kHz (+ - QRM)

Dist. 16: Sun. 7:00 PM 146.28/88 (Pueblo & Huerfano Counties)

### UPCOMING ACTIVITIES

Apr. 6,7: Super Cities Walk  
Apr. 13: Walk For Mankind  
Apr. 28: March of Dimes Walk America

### SOUTHERN COLO. TRAFFIC NET

Doug/N4TGO, due to other commitments, had to give up managing the SCTN. Because The SCTN is a message handling training net and ARES needs more people with traffic experience, I will try to manage the net until someone else comes forward. Starting Feb. 1, the SCTN will meet at 7 PM each evening. This time change is for better coordination of passing traffic in-out of other nets.

On Tuesdays the SCTN will be combined with our ARES net. Normally the SCTN is on 146.37/97 (PPFMA) repeater, however, until this repeater is returned to normal condition, we will be using 147.945/345 (CMRG) repeater. We need some more net control people. So please check in and offer your services.

73 John/N0KIC

## EDGE of SPACE SCIENCE

Help support Balloon launches that carry Amateur Radio and other experiments to the edge of space. One year memberships are \$ . for adults and \$ . for High school students. All members are full members. For more informations contact:

Malcolm Benton KE9S phone# 488-2071

## DITS AND BITS

**For Sale:** Several Packet Radio Terminals. \$50 to \$90 each. These terminals are tested and PKT ready to go with TNC. Will N0HRD 471-8527

**For Sale:** Newcomb 12 volt power supply. 23A continuous 35A surge \$100.00 Al N0CMW 473-1660

**For Sale:** Kenwood SP430 Speaker \$25; Kenwood MC60 w/MJ-35 \$30; Kenwood SP41 \$20; Alliance Rotor H73 \$60; Astron RS-20M \$60; Larson Mag mount ant. NMO-150 \$25; Cushcraft A147-20T \$40; Ringo Ranger 2 \$20; Tower 30 Ft. \$30 Troy Chung 392-9188

**Wanted:** Manual or copy for Swan 350 Mike 579-8958.

## ARE YOU AN ACTIVE MEMBER?

### (FROM VARIOUS SOURCES)

Are you an active member, the kind that would be missed?

Or are you just contented with your name upon a list?

Do you attend the meetings and mingle with the crowd?

Or do you just stay at home and gripe both long and loud?

Or do you take an active part to help the club along?

Or are you just as satisfied as one that "just belongs?"

Do you ever go to visit a member who is sick?

Or leave the work to just a few and talk about "the clique?"

there's quite a hamfest schedule that means success if done.

and it can be accomplished with the help of EVERYONE.

So attend the meetings regularly and help with hand and heart

Don't be just a member, but take an active part

Now, think it over carefully - am I right or wrong?

Are You an active member or do you just belong?



SNEAT, RICHARD	MOIKE	4436 DELIGHTED CIR. N. COLO. SPGS. CO	80917 596-7773
TANNER, MIMI	XAOYX	3308 CORBETT LN. COLO. SPGS. CO	80907 634-7563
TESAR, ROBERT	WORTH	3390 CORFINA DR. COLO. SPGS. CO	80918 594-7591
THOMPSON, BOB	W0AA	123 W. PINES PEAK CRIPPLE CREEK CO	80813 689-2983
THOMPSON, TERRY	W0XYZ	123 W. PINES PEAK CRIPPLE CREEK CO	80813 689-2983
TILLOTSON, B. JR	X30RD	1809 PEAK LN COLO. SPGS. CO	80904 473-0952
TOEPPEH, DEREK	W40ZT1	8315 TILLER CT. COLO. SPGS. CO	80920 590-7082
TOMS, CHESTER	W0JNP	80X 101 LAKE GEORGE CO	80827 748-3321
TORBIT, CHAS. JR	W06GEV	506 N MAIN ST FOUNTAIN CO	80817 382-7063
TRACY, DENNIS		2129 LANDER CIR COLO. SPGS. CO	80907 594-4475
TROLANDER STEPHEN	K0JTG	P.O. BOX 707 PALMER LAKE CO	80133 481-2066
UBERECKEN, RAY	A00L	9636 THOROUGHbred LN. COLO. SPGS. CO	80908 493-3544
UPTON, CLIFF	W0LKE	4145 ANITA CIR. COLO. SPGS. CO	80918 598-5420
VAN MOUTAN, ROXY	K00DM	1618 KODIAC DR. COLO. SPGS. CO	80910 635-4009
VAN ZANT, FRANK	KL7TBA	2424 VIRGO DR. COLO. SPGS. CO	80906 632-7630
YROOKAN, ALLEN	W0CHW	1341 DIANA LN. COLO. SPGS. CO	80909 473-1660
YROOKAN, FRANCES	W0TUT	1341 DIANA LN. COLO. SPGS. CO	80909 473-1660
WALLACE, LEE	W46IZI	1188 CREE DR COLO. SPGS. CO	80915 637-9630
WARRICK, MATT	KC4KGS	3175 PINON VALLEY RD. COLO. SPGS. CO	80919 531-6609
WEATHERLEY, TOM	AD00	14450 PINECREST DR COLO. SPGS. CO	80908 495-2877
WEIPPERT, ROBERT		4250 ORO BLANCO DR. COLO. SPGS. CO	80917 380-8752
WESTBY, STEVEN	W07YHR	1540 KEITH DR COLO. SPGS. CO	80916 570-1070
WHITE, JACKIE	K42KFR	1420 NORTHGATE RD COLO. SPGS. CO	80921 495-4147
WHITE, SID	X42KER	1420 NORTHGATE RD COLO. SPGS. CO	80921 495-4147
WILSON, DAVID	W0ZHZ	7256 WHITLEY DR. COLO. SPGS. CO	80920 599-3819
WITTE, BOB	X00CY	18070 SUNBURST DR. MONUMENT CO	80132 488-0859
WOLFE, CLARENCE	W0FPQ	8750 DALE RD. COLO. SPGS. CO	80915 591-0184
WOODRUFF, CARL	X0NY8	2405 PASEO RD. COLO. SPGS. CO	80907 634-8372
ZIMMERMAN, JIM	X0UN5	4411 EDWINSTONE COLO. SPGS. CO	80907 599-3119
ZIMMERMAN, WILL	W0NRD	3106 HUDSON ST. COLO. SPGS. CO	80910 471-8527

# THE ARRL Letter



## League Streamlines Volunteer Exam Program

Just in time to welcome newcomers to Amateur Radio via the code-free Technician license, ARRL has announced major improvements in its Volunteer Examiner (VE) program. The changes, most of which take effect immediately, will make examinations more convenient for potential amateurs and present hams wishing to upgrade.

The new ARRL program offers greater flexibility and support for Volunteer Examiners who participate through the ARRL Volunteer Examiner Coordinator (ARRL/VEC).

To make it possible for VEs to schedule examination sessions more frequently and to provide more publicity in their local areas, the League will now permit its VE teams to re-

tain up to \$4.00 of the \$5.25 exam fee to offset expenses incurred locally. The services the League has traditionally provided to its VE teams free of charge will continue to be available on that basis.

VEs may now telephone the ARRL VEC via a toll-free number: 1-800-9-ARRL-VEC (1-800-927-7583). The toll-free service is available in all 50 states, Puerto Rico, and the Virgin Islands. The service can even be accessed from some foreign countries; VE teams overseas should contact the ARRL/VEC for information on how to access the number from their locations.

VEs who have been active in other VEC programs and whose accreditation in another program is cur-

rent are now able to apply for "instant accreditation" as ARRL Volunteer Examiners.

By April 1, VE teams who prefer to use their own computers to generate exams will be able to do so. Teams that prefer a multiple-choice format for Morse code exams will be able to use that format, at their option.

"As a result of the code-free Technician license, the demands on Amateur Radio Volunteer Examiners will be very heavy in the coming months," says ARRL Executive Vice President David Sumner, K1ZZ. "We want to give our VEs the best support we can during this critical period. We also want to make sure that anyone seeking an opportunity to take an exam won't have far to look."

## GREAT HAMS

*by Sarah Coppin  
6th Grade Student  
Eagleview Middle School*

Mr. Lopez, KA5DVO, a science teacher at Eagleview Middle School, located in Academy Dist. #20, has been teaching anyone who wants to know about HAM radio in an enrichment course for 6th, 7th, and 8th graders and in his science class.

There have been some really interesting demonstrations at E. M. S. such as one on 2-meter by Rosie, WA0MNL and her husband Russ, KB0FNM. Rosie talked to her friend, Connie, using the phone patch; they also talked about hand helds and the different links you can use to go long distances with the radio.

None of the students had ever seen anybody go so fast on the morse code key as Frank, N0EIM, did when he was talking to Pete, N0LA. Frank says basically, all he does is use the code that he learned so well while serving in WW II.

There are about 100 6th graders who think packet radio is great thanks to Oak, K0ROL, who spent a whole day talking to each class about it. Everyone enjoyed sending messages to and from his mailbox and talking to other HAMS.

Everyone who was in Mr. Lopez's class was thrilled at making a contact with a man in Monterey, Mexico. For many of us this was our first contact with an operator who was out of the country.

Everyone here at Eagleview thanks Connie, KA0PXE, and Ralph, KA0MTX, for donating a 1990 North American call book for our school use. We also thank everyone who has come and talked to our classes about HAM radio. We enjoyed our new experiences.

### TRI-CITY BREAKFAST

SATURDAY MARCH 16TH 0730  
STEAK & EGGS  
PUEBLO, COLORADO

(Contact WA0MNL, ROSIE @ 471-9965 OR  
N0KJY, DON IN PUEBLO for more info)

## POEM TO THE GULF...

Dearest Son,

What's It Like?

To be a Marine in a far off land  
With the wind, bugs and the sand.  
Where the time difference is night and day  
And where people talk in a strange way,  
Where herds of camels roam around  
And not one can of beer is found.

The sound of a siren—what'll it bring  
Put on the gas mask—it's that missile thing!  
Flashes of light in the night sky,  
Means the enemy could be close by.  
Keep alert, Son, gun by your side  
As you serve your country with pride.

What's It Like?

To miss family, home, and friends  
Ham radio, TV, the list never ends.  
Oh! To be in the 'Ham Shack', keyer in hand  
And tune up the rig to the 20 Meter band.  
To work a contest, and give DX a try,  
To relax and to be just Larry, K0RI.

Family and friends are proud of what you do.  
We ask God to take special care of you.  
We know you think of us each day

And we just want to say-----

"We love you and wish you the very best  
God in his love will take care of the rest!"

Signed: Your Loving Mother,

*Written By Rosemarie Caloway  
February 14th 1991*

## HW-7

### A QRP Classic

Rick Brown - KD0SU

Are you interested in QRP operation but not inclined to build something from scratch? There are some older QRP rigs around that go in the "classic" category. One of these is the Heathkit HW-7. I found one last year at a swapmeet for less money than it costs me to take the family out to dinner.

The HW-7 is a 15, 20, and 40 meter CW rig. It runs from one to two watts output power depending on the band. The lowest power out is on 15 meters and the highest on 40 meters. For those of you used to running higher power you may not think it is possible to make contacts with a rig like this. Well, it is more difficult, but it can be done. When I first brought the rig home and tried it out I made a contact on 15 meters with a guy in Illinois. After the contact I decided to measure the power out. Not having a QRP power meter, I connected the rig to a dummy load and measured the RF voltage to calculate the power. After checking the formula in the ARRL handbook I figured I was running three tenths of a watt output! I then aligned the transmitter to get the power up to the rated output. This rig is definitely not a "rock crusher." It does require more skill, both on your part, and for the person on the other end.

The real limitation on this rig is not the transmitter however. The direct conversion receiver lacks sensitivity and selectivity. It also suffers from microphonics - bump the case or any of the controls and you can hear it. There have been numerous articles written over the years to improve this classic rig. Improvements include everything from a new receiver front end, audio filters for the receiver to power amplifiers to boost the power output.

This probably isn't the rig to start out with as a Novice. In fact, I wouldn't recommend real QRP (less than five watts) to any novice. If you are looking for a small rig that costs little and is a lot of fun to play with this could be it. There is also a successor, the HW-8 that includes 80. There is a new book available for \$7.00 from the QRP editor of 73 magazine called the HW-8 Handbook. It includes a collection of modifications to the HW-7, HW-8, and HW-9. My copy of the book recently arrived in the mail. Some of the modifications are nice to have, while others really improve the performance. While the HW series of QRP rigs are a little large to take on a backpacking trip, they do nicely on trips with the car. A dipole antenna strung between a couple of trees

will work very well with these rigs. Stay away from trap antennas if you can. Full size antennas seem to work best. If you see one of these little rigs at the next swapmeet you may want to pick it up and have a little fun.

Let me know, and we can work each other QRP!

## AMATEUR RADIO CLASSES

For the Novice, Codeless Technician, and Technician License.

Will be held at the VFW Post 4051  
430 East Pikes Peak, Colorado Springs

Date: March 18th with classes each Monday and Thursday from 7pm to 9pm.

To sign up call AD0Z, Al @ 597-8514 or Russ, KB0FNM @ 471-9965.

If you do not sign up ahead of time you will need to push the buzzer at the VFW and inform them you are with the radio classes.

There is no fee for the classes.

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## COLORADO SWAPFEST SCHEDULE

**APRIL 6, 1991 LARCFEST BOULDER COUNTY FAIRGROUNDS, LONGMONT, CO. CONTACT: LONGMONTARC**

**MAY 18, 1991 PIKES PEAK RADIO AMATEUR ASSN SWAPFEST SHOPS AT THE BLUFFS, N.W. CORNER OF AUSTIN BLUFFS AT ACADEMY BLVD., COLORADO SPRINGS, CO. CONTACT: NOJUT OR AL, N0CMW 719-473-1660**

**JUNE 8, 1991 SUPERFEST LARIMER COUNTY FAIRGROUNDS, LOVELAND, CO CONTACT: KENT, KA0TTH 686-9594**

**JULY 13-14, 1991 MOUNTAIN ARC CAMPOUT & SWAPFEST RED ROCKS CAMPGROUND WOODLAND PARK, CO CONTACT: JOE, N0CMD 719-687-3641**

**JULY 21, 1991 DENVER RADIO CLUB SWAPFEST JEFFCO FAIRGROUNDS, GOLDEN, CO. CONTACT: KEITH N0LSL 680-0862**

**SEPTEMBER 29, 1991 BARCFEST BOULDER COUNTY FAIRGROUNDS, LONGMONT CO CONTACT: BRUCE, WB0MZI 530-2903**

**OCTOBER 20, 1991 ROCKY MOUNTAIN RADIO LEAGUESWAP JEFFCO FAIRGROUNDS, GOLDEN, CO CONTACT: MIKE WB0LGC**

### Membership Application PIKES PEAK RADIO AMATEUR ASSOCIATION, INC.

P.O. Box 16521  
Colorado Springs, CO 80935

Date \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Call \_\_\_\_\_ License Class \_\_\_\_\_

Are You An ARRL Member? ☐ Yes ☐ No

Telephone \_\_\_\_\_

- Member Over 65 \$10.00
- Family Both Over 65 \$12.00
- Associate Member \$10.00

- Full Member \$15.00
- Family Membership \$18.00
- Newsletter Only \$10.00

Additional Names \_\_\_\_\_ Call \_\_\_\_\_ Class \_\_\_\_\_

\_\_\_\_\_

Associate Member

☐ (Outside Teller & El Paso Counties.)

☐ RENEWAL ☒ HERE

PLEASE TYPE OR PRINT CLEARLY